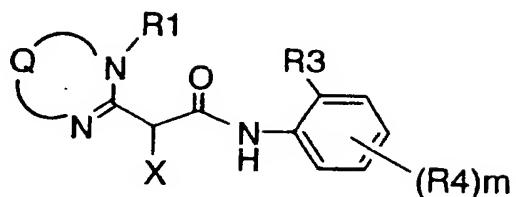


WHAT IS CLAIMED IS:

1. A dye-forming coupler represented by formula (I):

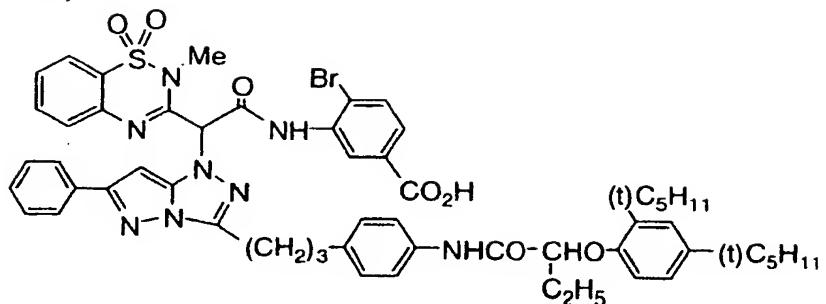
formula (I)



5

wherein Q represents a group represented by  $-C(-R_{11})=C(-R_{12})-SO_2-$ ;  $R_{11}$  and  $R_{12}$  bond with each other to form, together with the  $-C=C-$  moiety, a 5- to 7-membered ring, or  $R_{11}$  and  $R_{12}$  each independently represent a hydrogen atom or a substituent;  $R_1$  represents a substituent;  $R_3$  represents a substituent;  $R_4$  represents a substituent;  $m$  represents an integer of 0 to 4; when  $m$  is 2 or more,  $R_4$ s may be the same or different, or  $R_4$ s may bond each other to form a ring; and  $X$  represents a hydrogen atom, or a group capable of being split-off upon a coupling reaction with an oxidized product of a developing agent; with the proviso that the following compound (I-A) is excluded from the dye-forming coupler represented by formula (I).

( I - A )

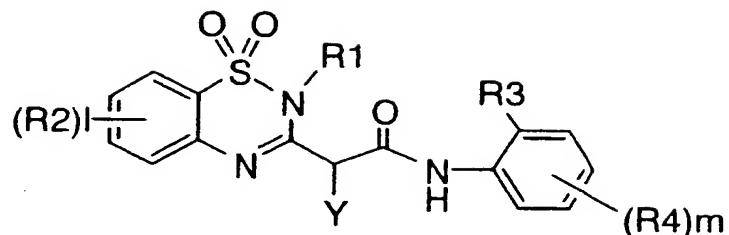


2. The dye-forming coupler as claimed in claim 1,  
wherein R1 is a substituted or unsubstituted alkyl group,  
5 and R3 is a halogen atom, an alkoxy group, an aryloxy  
group, an alkyl group, an alkylthio group, or an arylthio  
group.
3. The dye-forming coupler as claimed in claim 1,  
10 wherein the substituent represented by R1 has 11 or more  
carbon atoms in total.
4. The dye-forming coupler as claimed in claim 1,  
wherein X is an imidazole-1-yl group which may have a  
15 substituent, a pyrazole-1-yl group which may have a  
substituent, or a pyrrole-1-yl group which may have a  
substituent.

5. A dye-forming coupler represented by formula

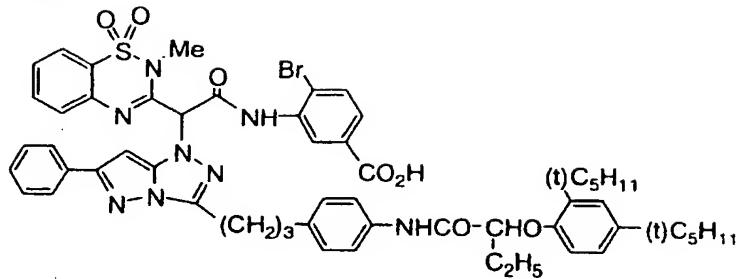
(II):

formula (II)



wherein R<sub>1</sub> represents a substituent; R<sub>2</sub> represents a substituent; l represents an integer of 0 to 4; when l is  
5 2 or more, R<sub>2</sub>s may be the same or different, or R<sub>2</sub>s may bond with each other to form a ring; R<sub>3</sub> represents a substituent; R<sub>4</sub> represents a substituent; m represents an integer of 0 to 4; when m is 2 or more, R<sub>4</sub>s may be the same or different, or R<sub>4</sub>s may bond with each other to form  
10 a ring; and Y represents a group capable of being split-off upon a coupling reaction with an oxidized product of a developing agent;  
with the proviso that the following compound (I-A) is excluded from the dye-forming coupler represented by  
15 formula (II).

(I-A)



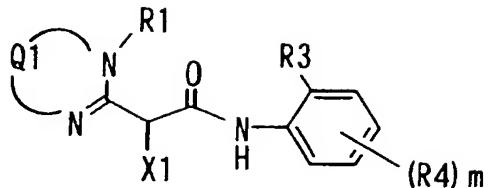
6. The dye-forming coupler as claimed in claim 5,  
wherein R1 is a substituted or unsubstituted alkyl group,  
5 and R3 is a halogen atom, an alkoxy group, an aryloxy  
group, an alkyl group, an alkylthio group, or an arylthio  
group.

7. The dye-forming coupler as claimed in claim 5,  
10 wherein the substituent represented by R1 has 11 or more  
carbon atoms in total.

8. The dye-forming coupler as claimed in claim 5,  
wherein Y is an imidazole-1-yl group which may have a  
15 substituent, a pyrazole-1-yl group which may have a  
substituent, or a pyrrole-1-yl group which may have a  
substituent.

9. A dye-forming coupler represented by formula (I-  
20 2):

formula (I-2)



wherein Q1 represents a group represented by  $-C(-R_{11})=C(-R_{12})-Z-$ ; Z represents  $-SO_2-$  or  $-CO-$ ;  $R_{11}$  and  $R_{12}$  bond with each other to form, together with the  $-C=C-$  moiety, a 5-

5 to 7-membered ring, or  $R_{11}$  and  $R_{12}$  each independently represent a hydrogen atom or a substituent;  $R1$  represents a substituent;  $R3$  represents a substituent;  $R4$  represents a substituent;  $m$  represents an integer of 0 to 4; when  $m$  is 2 or more,  $R4$ s may be the same or different, or  $R4$ s may  
10 bond with each other to form a ring; and  $X1$  represents a group that has thereon a dissociation group whose  $pK_a$  is 1 to 12, and that is capable of being split-off upon a coupling reaction with an oxidized product of a developing agent.

15

10. The dye-forming coupler as claimed in claim 9,  
wherein  $R1$  is a substituted or unsubstituted alkyl group,  
and  $R3$  is a halogen atom, an alkoxy group, an aryloxy  
group, an alkyl group, an alkylthio group, or an arylthio  
20 group.

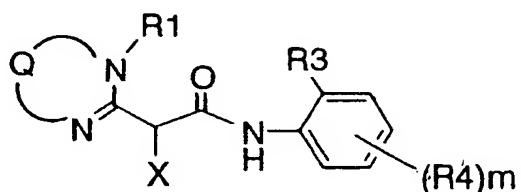
11. The dye-forming coupler as claimed in claim 9,  
wherein the substituent represented by R1 has 11 or more  
carbon atoms in total.

5           12. The dye-forming coupler as claimed in claim 9,  
wherein X1 is an imidazole-1-yl group which may have a  
substituent, a pyrazole-1-yl group which may have a  
substituent, or a pyrrole-1-yl group which may have a  
substituent.

10

13. A silver halide photographic light-sensitive  
material, which comprises at least one dye-forming coupler  
selected from the group consisting of a dye-forming  
coupler represented by formula (I), a dye-forming coupler  
15 represented by formula (II), and a dye-forming coupler  
represented by formula (I-2):

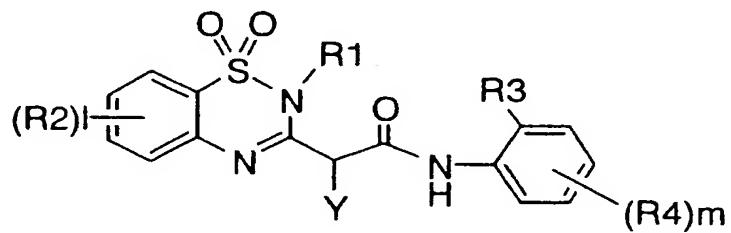
formula (I)



wherein Q represents a group represented by  $-C(-R_{11})=C(-R_{12})-SO_2-$ ; R<sub>11</sub> and R<sub>12</sub> bond with each other to form,  
20 together with the  $-C=C-$  moiety, a 5- to 7-membered ring,

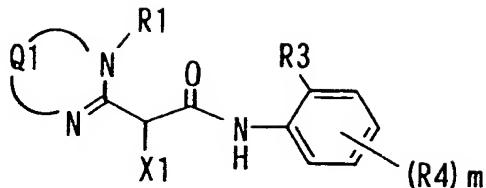
or R<sub>11</sub> and R<sub>12</sub> each independently represent a hydrogen atom or a substituent; R1 represents a substituent; R3 represents a substituent; R4 represents a substituent; m represents an integer of 0 to 4; when m is 2 or more, R4s  
5 may be the same or different, or R4s may bond each other to form a ring; and X represents a hydrogen atom, or a group capable of being split-off upon a coupling reaction with an oxidized product of a developing agent;

formula (II)



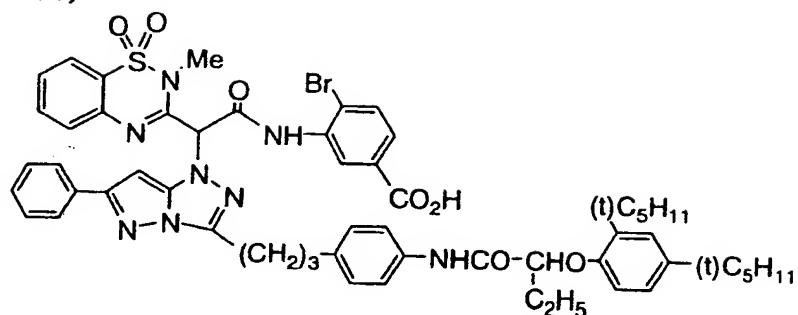
10 wherein R1 represents a substituent; R2 represents a substituent; l represents an integer of 0 to 4; when l is 2 or more, R2s may be the same or different, or R2s may bond with each other to form a ring; R3 represents a substituent; R4 represents a substituent; m represents an  
15 integer of 0 to 4; when m is 2 or more, R4s may be the same or different, or R4s may bond with each other to form a ring; and Y represents a group capable of being split-off upon a coupling reaction with an oxidized product of a developing agent;

formula (I-2)



- wherein Q1 represents a group represented by  $-C(-R_{11})=C(-R_{12})-Z-$ ; Z represents  $-SO_2-$  or  $-CO-$ ;  $R_{11}$  and  $R_{12}$  bond with each other to form, together with the  $-C=C-$  moiety, a 5-  
5 to 7-membered ring, or  $R_{11}$  and  $R_{12}$  each independently represent a hydrogen atom or a substituent; R1 represents a substituent; R3 represents a substituent; R4 represents a substituent; m represents an integer of 0 to 4; when m  
10 is 2 or more, R4s may be the same or different, or R4s may bond with each other to form a ring; and X1 represents a group that has thereon a dissociation group whose pKa is 1 to 12, and that is capable of being split-off upon a coupling reaction with an oxidized product of a developing agent;
- 15 with the proviso that the following compound (I-A) is excluded from the dye-forming coupler represented by formula (I) or (II).

(I - A)



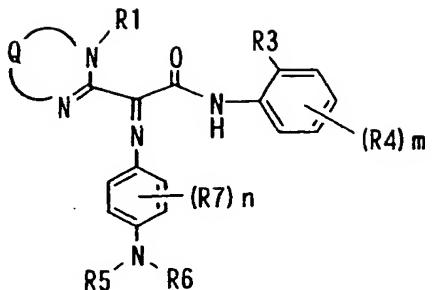
14. The silver halide photographic light-sensitive material as claimed in claim 13, wherein, in the formula 5 (I), (II), or (I-2), R1 is a substituted or unsubstituted alkyl group, and R3 is a halogen atom, an alkoxy group, an aryloxy group, an alkyl group, an alkylthio group, or an arylthio group.

10 15. The silver halide photographic light-sensitive material as claimed in claim 13, wherein X, Y, or X1 in the above-mentioned formula (I), (II), or (I-2) is an imidazole-1-yl group which may have a substituent, a pyrazole-1-yl group which may have a substituent, or a 15 pyrrole-1-yl group which may have a substituent.

16. An azomethine dye compound represented by formula (D):

{ }

formula (D)



wherein, in formula (D), Q represents a group represented by  $-C(-R_{11})=C(-R_{12})-SO_2-$ ;  $R_{11}$  and  $R_{12}$  bond with each other to form, together with the  $-C=C-$  moiety, a 5- to 7-membered ring, or  $R_{11}$  and  $R_{12}$  each independently represent a hydrogen atom or a substituent;  $R_1$  represents a substituent;  $R_3$  represents a substituent;  $R_4$  represents a substituent;  $m$  represents an integer of 0 to 4; when  $m$  is 2 or more,  $R_4$ s may be the same or different, or  $R_4$ s may bond with each other to form a ring;  $R_5$  and  $R_6$  each independently represent a hydrogen atom or a substituent, or  $R_5$  and  $R_6$  may bond with each other to form a ring;  $R_7$  represents a substituent;  $n$  represents an integer of 0 to 4; when  $n$  is 2 or more,  $R_7$ s may be the same or different, or  $R_7$ s may bond with each other to form a fused ring; or when  $n$  is 1 or more,  $R_7$  may bond with  $R_5$  or  $R_6$  to form a fused ring;

with the proviso that at least one group selected from the group consisting of  $R_1$ ,  $R_3$ ,  $R_4$ , the substituent

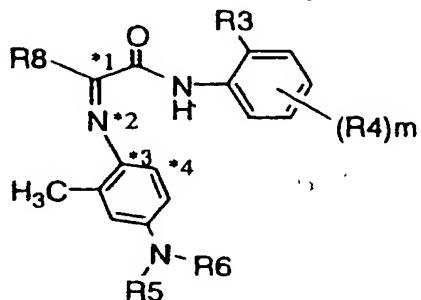
represented by R<sub>11</sub>, the substituent represented by R<sub>12</sub>, and at least one substituent on the ring that is formed by a combination of R<sub>11</sub> and R<sub>12</sub>, is a group having 10 or more carbon atoms in total.

5

17. The azomethine dye compound as claimed in claim 16, wherein R1 is a substituted or unsubstituted alkyl group, and R3 is a halogen atom, an alkoxy group, an aryloxy group, an alkyl group, an alkylthio group, or an 10 arylthio group.

18. An azomethine dye compound represented by formula (IV), wherein an angle that is defined by a dihedral angle C<sup>\*1</sup> N<sup>\*2</sup> C<sup>\*3</sup> C<sup>\*4</sup> and that is the most 15 stabilized stereochemical structure in terms of energy, which is measured by quantum chemistry calculations, is within the range between -28° and 28°:

formula (IV)

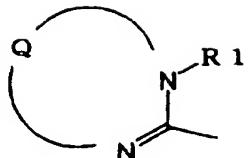


wherein, in formula (IV), \*<sub>1</sub>, \*<sub>2</sub>, \*<sub>3</sub> and \*<sub>4</sub> each express

a number labeled on the atom and define the angle represented by the dihedral angle C<sup>\*</sup>1 N<sup>\*</sup>2 C<sup>\*</sup>3 C<sup>\*</sup>4; R3 and R4 each independently represent a substituent; m represents an integer of 0 to 4; when m is 2 or more, R4s 5 may be the same or different, or R4s may bond with each other to form a ring; R5 and R6 each independently represent a hydrogen atom or a substituent, or R5 and R6 may bond with each other to form a ring; R8 represents an aryl group or a heterocyclic group,  
10 with the proviso that at least one group selected from the group consisting of R3, R4, and at least one substituent on the aryl ring or heterocycle represented by R8, is a group having 10 or more carbon atoms in total; and that the calculation based on quantum chemistry, which is used  
15 to measure the dihedral angle C<sup>\*</sup>1 N<sup>\*</sup>2 C<sup>\*</sup>3 C<sup>\*</sup>4 is carried out using the basis function of 6-31 G<sup>\*</sup> or more according to a widely used B3LYP method (density-functional method).

19. The azomethine dye compound as claimed in  
20 claim 18, wherein R8 is a group represented by formula  
(V):

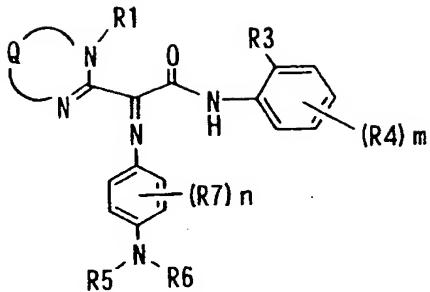
formula (V)



wherein, in formula (V), Q represents a group represented by  $-C(-R_{11})=C(-R_{12})-SO_2-$ ;  $R_{11}$  and  $R_{12}$  bond with each other to form, together with the  $-C=C-$  moiety, a 5- to 7-  
5 membered ring, or  $R_{11}$  and  $R_{12}$  each independently represent a hydrogen atom or a substituent; and  $R1$  represents a substituent.

20. A silver halide photographic light-sensitive  
10 material comprising a coupler capable of forming a dye upon a coupling reaction with an oxidized product of an aromatic primary amine,  
wherein at least one of said dye formed by coupling  
reaction is one selected from the group consisting of an  
15 azomethine dye compound represented by formula (D) and an azomethine dye compound represented by formula (IV):

formula (D)

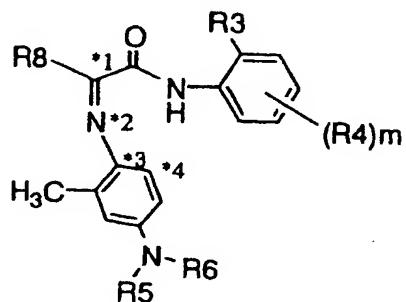


wherein, in formula (D), Q represents a group represented by  $-C(-R_{11})=C(-R_{12})-SO_2-$ ;  $R_{11}$  and  $R_{12}$  bond with each other to form, together with the  $-C=C-$  moiety, a 5- to 7-membered ring, or  $R_{11}$  and  $R_{12}$  each independently represent a hydrogen atom or a substituent;  $R_1$  represents a substituent;  $R_3$  represents a substituent;  $R_4$  represents a substituent;  $m$  represents an integer of 0 to 4; when  $m$  is 2 or more,  $R_4$ s may be the same or different, or  $R_4$ s may bond with each other to form a ring;  $R_5$  and  $R_6$  each independently represent a hydrogen atom or a substituent, or  $R_5$  and  $R_6$  may bond with each other to form a ring;  $R_7$  represents a substituent;  $n$  represents an integer of 0 to 4; when  $n$  is 2 or more,  $R_7$ s may be the same or different, or  $R_7$ s may bond with each other to form a fused ring; or when  $n$  is 1 or more,  $R_7$  may bond with  $R_5$  or  $R_6$  to form a fused ring;

with the proviso that at least one group selected from the group consisting of  $R_1$ ,  $R_3$ ,  $R_4$ , the substituent

represented by  $R_{11}$ , the substituent represented by  $R_{12}$ , and at least one substituent on the ring that is formed by a combination of  $R_{11}$  and  $R_{12}$ , is a group having 10 or more carbon atoms in total; and

formula (IV)



5

- wherein, in formula (IV), an angle that is defined by a dihedral angle  $C^*1 N^*2 C^*3 C^*4$  and that is the most stabilized stereochemical structure in terms of energy, which is measured by quantum chemistry calculations, is
- 10 within the range between  $-28^\circ$  and  $28^\circ$ ; and  $*_1$ ,  $*_2$ ,  $*_3$  and  $*_4$  each express a number labeled on the atom and define the angle represented by the dihedral angle  $C^*1 N^*2 C^*3 C^*4$ ;  $R_3$  and  $R_4$  each independently represent a substituent;  $m$  represents an integer of 0 to 4; when  $m$  is 2 or more,
  - 15  $R_4$ s may be the same or different, or  $R_4$ s may bond with each other to form a ring;  $R_5$  and  $R_6$  each independently represent a hydrogen atom or a substituent, or  $R_5$  and  $R_6$  may bond with each other to form a ring;  $R_8$  represents an aryl group or a heterocyclic group, with the proviso that

at least one group selected from the group consisting of R3, R4, and at least one substituent on the aryl ring or heterocycle represented by R8, is a group having 10 or more carbon atoms in total; and that the calculation based  
5 on quantum chemistry, which is used to measure the dihedral angle C<sup>\*</sup>1 N<sup>\*</sup>2 C<sup>\*</sup>3 C<sup>\*</sup>4 is carried out using the basis function of 6-31 G\* or more according to a widely used B3LYP method (density-functional method).